

**REMARKS**

By this amendment, claims 1, 5, 10, 12, 17, 19, and 24 have been amended. Claims 1-27 are pending in the application. Applicant reserves the right to pursue the original claims and other claims in this and other applications.

Claims 1-3 and 26 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hirata (US 6,240,424). This rejection is respectfully traversed.

Claim 1 recites a method of classifying an image comprising, *inter alia*, “designating a number of query images to be extracted from a plurality of images stored in an image database in correspondence with feature data, the image database having each image stored in an image file corresponding to an image feature; [and] ... extracting the query images from a plurality of images stored in the image database in correspondence with feature data” (emphasis added). Applicant respectfully submits that Hirata does not disclose these limitations.

To the contrary, as Hirata discloses searching images based on the similarity with respect to generic shapes such as a triangle or a square (a primary object), an object desired by the user may not be found by conducting a search one time. That is, a search may have to be conducted more than once. Since a considerable number of images are covered with respect to a single generic shape, it is more likely, with Hirata, that a considerable number of undesired or unanticipated images would be detected in a single search. Therefore, the efficiency of the search greatly depends on what primary object is chosen by the user. Thus, Hirata does not disclose how undesired images can be prevented from being detected in the search.

The claimed invention, however, registers image feature amounts and image file names on a one-to-one basis, that is, since all of the images are minutely stored (sorted)

in relation to an image feature amount, it is more likely that the user can find a desired image by conducting a search one time. In addition, the user can designate the number of images (e.g., specification, p. 40, ln. 1-4) to be searched to prevent unwanted images from being detected (e.g., specification, p. 37, ln. 6 – p. 38, ln. 15).

Applicant respectfully submits that Hirata does not disclose, teach, or suggest designating a number of query images to be extracted from a plurality of images and extracting the query images in correspondence with feature data, as recited in claim 1.

Since Hirata does not disclose all the limitations of claim 1, claim 1 and dependent claims 2-3 and 26 are not anticipated by Hirata. Applicant respectfully requests that the 35 U.S.C. § 102(b) rejection of claims 1-3 and 26 be withdrawn and the claims allowed.

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hirata in view of Yamasaki et al (US 2003/0011683). This rejection is respectfully traversed. Claim 4 depends from claim 1 and is patentable at least for the reasons mentioned above, and on its own merits. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claim 4 be withdrawn and the claim allowed.

Claims 5-7, 12-14, 19-21, and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pulo ("Recursive Space Decompositions in Force-Directed Graph Drawing Algorithms by K.J. Pulo) in view of Vrhel (US 2003/0198384). This rejection is respectfully traversed. In order to establish a *prima facie* case of obviousness "the prior art reference (or references when combined) must teach or suggest all the claim limitations." M.P.E.P. §2142. Neither Pulo nor Vrhel, even when considered in combination, teaches or suggests all limitations of independent claims 5, 12, or 19.

Claims 5, 12, and 19 recite, *inter alia*, “determining k representative points ... in a feature space in response to a distance between points in the feature space and representative points representative of a plurality of feature spaces surrounding the feature space ..., wherein the feature space indicates at least one of a histogram feature, an edge feature, and a texture feature” (emphasis added). Applicant respectfully submits that Pulo and Vrhel, even when combined, do not teach or suggest these limitations.

To the contrary, Pulo teaches only grouping objects with respect to proximity. §2.2, ln. 8-15. Applicant respectfully submits that Pulo does not disclose, teach, or suggest that the feature space indicates at least one of a histogram feature, an edge feature, and a texture feature, as recited in claims 5, 12, and 19. Nor is Vrhel cited for these limitations, and teaches only a color value as a feature amount for adjusting the shade of a color. Paragraph [0002]. Thus, Vrhel does not remedy the deficiencies of Pulo.

Since Pulo and Vrhel do not teach or suggest all of the limitations of claims 5, 12, and 19, claims 5, 12, and 19 are not obvious over the cited references. Claims 6-7, 13-14, 20-21, and 27 depend, respectively, from independent claims 5, 12, and 19, and are patentable at least for the reasons mentioned above, and on their own merits. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 5-7, 12-14, 19-21, and 27 be withdrawn and the claims allowed.

Claims 8-9, 15-16, and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pulo in view of Vrhel, and further in view of Hirata. This rejection is respectfully traversed. Claims 8-9, 15-16, and 22-23 depend, respectively, from independent claims 5, 12, and 19, and are patentable at least for the reasons mentioned

above, and on their own merits. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 8-9, 15-16, and 22-23 be withdrawn and the claims allowed.

Claims 10-11, 17-18, and 24-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Pulo in view of Vrhel, and further in view of Savakis et al. (US 2003/0059121). This rejection is respectfully traversed. None of Pulo, Vrhel, or Savakis et al., even when considered in combination, teaches or suggests all limitations of independent claims 10, 17, or 24.

Claims 10, 17, and 24 recite, *inter alia*, "dividing a feature space into three sub-feature spaces, the three sub-feature spaces being composed of two sub-feature spaces disposed within a prescribed radius with respect to two reference points in the feature space, and another sub-feature space other than the two sub-feature spaces ..., wherein the feature space indicates at least one of a histogram feature, an edge feature, and a texture feature" (emphasis added). Applicant respectfully submits that Pulo, Vrhel, and Savakis et al., even when combined, do not teach or suggest these limitations.

As discussed above, Pulo teaches only grouping objects with respect to proximity. §2.2, ln. 8-15. Applicant respectfully submits that Pulo does not disclose, teach, or suggest that the feature space indicates at least one of a histogram feature, an edge feature, and a texture feature, as recited in claims 10, 17, and 24. Nor are Vrhel or Savakis et al. cited for these limitations. Thus, Vrhel and Savakis et al. do not remedy the deficiencies of Pulo.


Since Pulo, Vrhel, and Savakis et al. do not teach or suggest all of the limitations of claims 10, 17, and 24, claims 10, 17, and 24 are not obvious over the cited references. Claims 11, 18, and 25 depend, respectively, from independent claims 10, 17, and 24, and are patentable at least for the reasons mentioned above, and on their own merits.

Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 10-11, 17-18, and 24-25 be withdrawn and the claims allowed.

In view of the above amendment, Applicant believes the pending application is in condition for allowance.

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